ABSTRACT

THESIS: The Relationship Between VE/VCO_2 Slope and All-Cause Mortality in Apparently Healthy Adults

STUDENT: Adam P. Grim Jr.

DEGREE: Master of Science

COLLEGE: College of Health

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Purpose: The purpose of this study was to assess the relationship between the VE/VCO_2 slope and all-cause mortality in apparently healthy adults. **Methods:** A convenience sample of 2,905 participants (45.3 ± 13.5 years, 53.5% male) who performed maximal cardiopulmonary exercise testing and comprehensive cardiovascular risk assessment at the Clinical Exercise Physiology Laboratory between 1968-2017 were analyzed. **Results:** A total of 439 all-cause mortality deaths were present during the 19.2 ± 11.6 year follow-up. VE/VCO_2 slope was not associated with mortality risk for the whole cohort (HR 1.011, 95% CI 0.995-1.027, p=0.189). For participants >60 years old, VE/VCO_2 slope was associated to mortality after adjustment for gender and CVD risk factors (HR 1.028, 95% CI 1.001-1.054, p=0.036). **Conclusion:** This prospective study shows that VE/VCO_2 slope is related with mortality risk in individuals >60 years old, making this CPX variable clinically useful and reinforcing results from select disease populations.